

**Notice of Allowability**

Application No.

10/020,729

Examiner

Antonio A. Caschera

Applicant(s)

MCNAMARA ET AL.

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to afterfinal amendment filed, 11/23/05.
2. ☒ The allowed claim(s) is/are 1-22, 24-30, 32, 40-49, 51 and 53-57.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-22, 24-30, 32, 40-49, 51 and 53-57 are allowed.

The following is an examiner's statement of reasons for allowance:

In reference to claim 1, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose determining whether a stamp position is a sliver, a sliver position being a valid position that will not generate an additional valid position, and avoiding movement of the current stamp position to a sliver position if additional valid positions are available, in combination with the further limitations of claim 1.

In reference to claims 2-21, 28, 29, 46-49 and 51, these claims are indicated as allowed because they claim dependency upon allowable claim 1.

In reference to claims 22 and 45, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose saving the over stamp position in an oversave stamp context when the over stamp position is valid and known to be productive and when said oversave stamp context does not already contain a stamp position that is known to be productive, in combination with the further limitations of claims 22 and 45.

In reference to claim 24, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose making a sliver back stamp position invalid if the over stamp position is valid, in combination with the further limitations of claim 24.

In reference to claim 25, claim 25 is indicated as allowed because it claims dependency upon allowable claim 24.

In reference to claim 26, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose making a sliver forward stamp position invalid if the over stamp position is valid, in combination with the further limitations of claim 26.

In reference to claim 27, claim 27 is indicated as allowed because it claims dependency upon allowable claim 26.

In reference to claim 30, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose determining that if a distance from a top-most sample point to a top edge of the stamp is larger than a distance from the bottom-most sample point to a bottom edge of the stamp rectangle, placing the stamp at the starting stamp position that includes the top-most vertex of the graphics object; and otherwise, placing the stamp at the starting stamp position that includes the bottom-most vertex of the graphics object, in combination with the further limitations in claim 30.

In reference to claim 32, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose determining that if the distance from a left-most sample point to a left edge of the stamp is larger than the distance from a right-most sample point to a right edge of the stamp rectangle, placing the stamp at the starting stamp position that includes the left-most vertex of the graphics object, otherwise placing the stamp at the starting stamp position that includes the right-most vertex of the graphics object, in combination with the further limitations in claim 32.

In reference to claim 40, the prior art of record (Voorhies et al. (U.S. Patent 6,504,542) and Choi et al. (U.S. Patent 6,285,376)) does not explicitly disclose determining whether a stamp position is a sliver, a sliver position being a valid position that will not generate an additional valid position, wherein at least one probe point is asymmetrically placed around the fragment stamp, in combination with the further limitations of claim 40.

In reference to claims 41-44 and 53-57, these claims are indicated as allowed because they claim dependency upon allowable claim 40.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *References Cited*

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Shehane et al. (U.S. Patent 6,900,803 B2)
  - Shehane et al. discloses a method and system for optimizing the rate of pixel generation to match the rate of which a memory maybe designated to receive pixel data.
- b. Sato et al. (U.S. Patent 6,731,301 B2)
  - Sato et al. discloses a system, method and program product for drawing a plurality of pixels in parallel.

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c. “Tiled Polygon Traversal Using Half-Plane Edge Functions,” Joel McCormack, Robert McNamara, Compaq Computer Corp. Proceedings of the ACM SIGGRAPH/EUROGRAPHICS workshop on Graphics hardware, Interlaken, Switzerland, 2000, pgs. 15-21.

- McCormack discloses techniques for traversing a polygon generating fragments one or more rows or columns at a time.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**571-273-8300 (Central Fax)**

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac  
*Me*  
12/31/05



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600